

ABSTRACT OF THE DISCLOSURE

In an illumination optical system constituted to uniformize the intensity distribution of illumination light by use of an optical integrator, the overall length thereof is shortened. The illumination optical system includes: a light source including a laser irradiating illumination light on an illuminated body such as a two-dimensional SLM and an optical integrator; the optical integrator being placed between this light source and the illuminated body and uniformizes the intensity distribution of the illumination light by passing the light through minute cells. In this system, the size of the minute cell of the optical integrator ($S_1=S_2$) is 1.5 mm or less.